

PSYC20006 Biological Psychology

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2014, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Lectures and Laboratories
Time Commitment:	Contact Hours: 24 hours of lectures and 12 hours of laboratories Total Time Commitment: 36 contact hours, estimated total time commitment 120 hours
Prerequisites:	There are no prerequisites for this subject
Corequisites:	There are no corequisites for this subject
Recommended Background Knowledge:	Prior coursework in the two Level 1 psychology subjects, Mind Brain and Behaviour 1 and Mind Brain and Behaviour 2 is recommended.
Non Allowed Subjects:	512222 Behavioural Neuroscience 2 512225 Biological Psychology
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards of Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit Website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Jacqueline Anderson
Contact:	Melbourne School of Psychological Sciences 12th floor Redmond Barry Building (Building 115 Map) Telephone: + 61 3 8344 6377 Email: enquiries@psych.unimelb.edu.au Web: http://www.psych.unimelb.edu.au
Subject Overview:	<p>This subject studies the relationship between brain mechanisms and behaviour. Its major aim is to develop an appreciation of the neurobiological basis of psychological function and dysfunction via three approaches. The first emphasises a top-down method that links psychological functions to their biological substrates. Neuroscientific research techniques and what they can reveal about psychological function are emphasised. These techniques are presented within an historical context, beginning with electroencephalography (EEG) and finishing with functional magnetic resonance imaging (fMRI). The second approach emphasises a bottom-up approach including the topics of brain development, neurons and neural circuits, neurotransmission and neurotransmitter substances, and the structurofunctional properties of selected brain regions. Neurobiological principles are illustrated using conditions with abnormal neuronal function. The third approach combines the top-down and bottom-up approaches to demonstrate how combining knowledge of cognitive theory and structurofunctional properties of the brain enables diagnosis and interpretation of pathological conditions. Case studies are used to illustrate this approach.</p> <p>A quantitative methods component will be integrated into the lecture, tutorial and assessment structure of this subject. The aim is to provide an understanding of, and practical experience</p>

	with, the appropriate experimental design and statistical analysis techniques used to evaluate hypotheses in Biological Psychology.
Learning Outcomes:	<p>The subject aims:</p> <ul style="list-style-type: none"> # To provide students with an integrated understanding of the way in which the brain regulates complex forms of human behaviour, as a basis for future studies in the behavioural neurosciences. # To provide students with an appreciation of the various methodologies for investigating brain and behaviour relationships. # To provide students with the opportunity for engaging in critical evaluation of competing theories within the field.
Assessment:	Laboratory report(s) of not more than 2000 words (40%) to be submitted during semester. An examination of no more than two hours (60%) to be completed at the end of semester during the specified University examination period. Each piece of assessment must be completed (hurdle requirements). Attendance at 80% or more of the laboratory classes and a class presentation are hurdle requirements. In case of failure to meet either hurdle requirement, additional work will be required before a passing grade can be awarded.
Prescribed Texts:	Carlson, NR. Physiology of Behaviour. 10th Edition. Pearson International.
Recommended Texts:	Kandel, E et al. <i>Essentials of Neural Science and Behaviour</i> . McGraw Hill.
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2014/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2014/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2014/B-MUS) <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>Students will be given appropriate opportunity and educational support to:</p> <ul style="list-style-type: none"> # develop skills related to the ability to research an area # analyze the information critically # arrange it in a report that is clearly expressed and lucid
Related Course(s):	Graduate Diploma in Psychology
Related Majors/Minors/Specialisations:	<p>Psychology Psychology Psychology Major Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED</p>
Related Breadth Track(s):	Connecting the Mind and Brain